SILICON (Si)

OSHA PEL: *10mg/M^3 (particulate)*
5mg/M^3 (resp. fraction)

ACGIH TLV: 10mg/M^3 (total dust)
5mg/M^3 (respirable dust)

PHYSICAL DATA

Appearance: Cubic, steel-gray crystals or dark brown powder

Melting Point: 1420°C

PHYSIOLOGICAL EFFECTS

Silicon is not readily available in its elemental form. Instead, it is more available as silica (SiO_2). Chronic exposure to silica dust leads to silicosis, a dust disease (pneumoconiosis) of the lungs characterized by coughing, dyspnea, wheezing, repeated non-specific chest illnesses and progressive impairment of pulmonary function. Symptons persist even after dust exposure ceases.

REACTIVITY DATA

Silicon reacts violently with alkali carbonates, oxidants, calcium, cesium carbide, chlorine, CoF_2, fluorine, IF_2, MnF_3, Rb_2C_2, FNO, silver fluoride and NaK alloy. It can react with oxidizing materials. When heated, silicon will react with water or steam to produce hydrogen.